WESTMORELAND COUNTY COMPREHENSIVE PLAN - 1991 UPDATE

SHORELINE RESOURCES CHAPTER

DRAFT 9-10-91

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This draft was presented for public comment, along with the rest of the Resources Inventory section of the draft comprehensive plan, at a public hearing before the Westmoreland County Planning Commission on October 2, 1991, and before the Westmoreland County Board of Supervisors on October 9, 1991. Drafts of the Policy Book and the Future Land Use Map are expected to be ready in early 1992 with final public hearings and adoption of the comprehensive plan expected by May of 1992.

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The following applies to maps 1-3 and 5-8:

Digital Data Source: Virginia Geographic Information System Database (VirGIS).

Developed By: Department of Conservation and Recreation, Division of Soil and Water Conservation (DCR-DSWC) and Information System Support Laboratory, Agricultural Engineering Department, Virginia Tech (VPI&SU-ISSL).

Soils from USDA Soil Conservation Service (SCS).

Land Use from National High Altitude Photography Program.

Slope and Erosion Index from USGS and SCS.

CHAPTER 2 SHORELINE RESOURCES

One of Westmoreland County's most valuable natural resources is the more than 250 miles of tidal shoreline. As population growth continues, the competition between the commercial seafood industry and the residential and recreational development industry for use of this resource will undoubtedly intensify. Population growth will also increase the need for open shoreline space for natural habitat. In as much as the use and development of shoreline resources is dependent upon local land use policies, this chapter has been developed as an informational database for the governing body to consult as it sets overall land use policies and as it decides individual land use cases. It should also be consulted by those shoreline landowners who contemplate developing their land. This chapter provides inventories of, analysis of, and maps of the following items:

1) Aquatic resources,
2) Major land use adjacent to the shoreline,
3) Water dependent facilities,
4) Public access areas, and
5) Shoreline erosion and accretion.

Where appropriate, resources for which the existing database is poor or nonexistence are identified and possible plans for obtaining the information are described.

AQUATIC RESOURCES

Surface Water

Westmoreland County has been blessed with over 15 square miles of good and high quality surface waters. These waters provide innumerable benefits, including recreational opportunities for boaters, skiers, wind-surfers and swimmers, and economic value from commercial fisheries. Point and non-point pollution sources, both locally and regionally, impact the quality of surface waters available in the county. Overflows from the Colonial Beach Sewage Treatment Plant, septic system failures, irresponsible boaters dumping sewage overboard, erosion and sedimentation from construction activities, nutrient laden runoff from agricultural fields and waterfront lawns, and many other activities combine to have measurable impacts on water quality. Although actions are being taken to

curb pollution from these sources, the value of surface water to the county warrants careful attention to its quality.

Commercial Fisheries

Commercial fisheries has been a traditional industry since the founding of Westmoreland County. There is great concern, today, that this industry is in a state of serious decline from which it might never recover. A number of various factors have, over the past few decades, reduced the total output from this sector, which is illustrated in Table 1 below. During the period from 1985 to 1989, the total marine resources harvested dropped from 8,214,511 pounds to 5,351,700 pounds, a decrease of 34.9%. The value of the amount harvested, however, more than doubled from $1,575,041 to $3,464,796. Also, the pounds harvested in 1989 represent a 46% decline from that of 1963 and a 44% decline from that in 1980. Obviously the lowering of the productivity of the county's marine resources needs to be studied in detail.

One cause of the decline in shellfish harvest is the amount of productive shellfish beds that have been condemned by the Health Department. Table 2 lists those areas that have been condemned either permanently or seasonally. During the 9 year period from 1978 to 1987, 314 acres of shellfish growing area were condemned. This is an increase in the acres of closed beds of 12%. In addition to shellfish bed closures there are other causes for the decline in the productivity of the county's marine resources. Other reasons include the increase in recreational boaters. While these boaters bring their own economic bonuses, their presence can result in economic loss to watermen. There are also environmental problems which result in a lower productivity of the marine resources. All told however, the National Marine Fisheries Service reports that in 1989, $3,464,796 worth of finfish and shellfish were harvested from the waters in and around Westmoreland County. Even though these commercial fisheries resources appear to be in a state of declining productivity, they are still important in the local economy.

Wetlands

Wetlands provide numerous environmental and economic benefits including, but not limited to, ground water discharge and recharge, flood control, shoreline erosion control, water quality improvement, wildlife refuge and fish spawning areas. Westmoreland County has a relative abundance of wetland areas. The Tidal Marsh Inventory, which was prepared by the Virginia Institute of Marine Science,

Table 1
Finfish and Shellfish Harvest, in Pounds
Source: National Marine Fisheries Service,
Statistical Data, 1989

Species	1963	1980	1985	1989
Alewives	3,970,700	144,700	47,500	100
Bluefish	19,700	149,300	78,600	1,800
Carp	14,000	2,000	11,000	4,300
Catfish & Bullhead	36,200	72,000	600	19,000
Croaker	1,500	--	500	500
Drum, Black	19,500	--	157,100	100
Eels	29,300	61,500	100	108,600
Flounder	--	17,100	2,600	1,400
Menhaden	2,873,600	7,238,900	6,136,600	2,887,600
Sea Trout	5,800	151,700	2,500	6,400
Shad	78,700	1,500	--	300
Spot	66,300	2,000	700	16,000
Striped Bass	362,100	139,500	115,300	--
White Perch	37,600	38,600	2,900	800
Yellow Perch	--	--	--	100
Other Finfish	40,000	900		28,200
Total Finfish	7,555,000	8,019,500	6,556,000	3,075,200
Crabs, Hard	1,020,400	556,600	1,025,500	1,335,800
Crabs, Peeler	n/a	18,100	6,100	14,500
Crabs, other	19,800	7,900	13,000	8,500
Oyster, Public	606,000	427,500	238,000	515,700
Oyster, Private	671,700	454,500	375,901	402,000
Total Shellfish	2,318,700	1,464,600	1,658,501	2,276,500
Total Finfish and Shellfish	9,873,700	9,484,300	8,214,501	5,351,700

locates over 2500 acres of tidal wetlands. These wetlands are shown on "Map 1,

Wetlands" in Appendix A of this chapter. The Westmoreland County Wetlands Board is charged with regulating the use of these wetlands. Activities in tidal wetlands, as defined by the §62.1-13.1, et. seq., of the Code of Virginia, require a permit from this board.

Table 2
Shellfish Condemnations
Source: State Department of Health

Area	Closed Acres 1978	Closed Acres 1987
Monroe Creek	413	426
Yecomico River	63	128
Monroe Bay, and Mattox Creek	1095	1095
Nomini and Currioman Bays	599	568
Lower Machodoc	87	120
Rosier Creek	113	119
Gardner Creek	0	0
Bonum Creek	0	127
Jackson Creek	0	24
Cabin Point Creek	0	77
Popes Creek	262	262
Total Acres Closed In Westmoreland County	2632	2946

In addition to the tidal wetlands, there are potentially tens of thousands of acres of yet to be quantified nontidal wetlands. Hydric soils are often used as an indicator of areas which may constitute wetlands. Those areas of the county which contain hydric soils, and therefore may be wetlands, are shown on "Map 2, Hydric Soils" in Appendix A of this chapter. This map indicates approximately 20,000 acres of hydric soils.

On September 12, 1990, Westmoreland County adopted the Chesapeake Bay Preservation Area Overlay District, in accordance with the requirements of the Chesapeake Bay Preservation Act. Activities in some of the nontidal wetlands and all of the tidal wetlands in the county are regulated under these zoning requirements. The wetlands so protected are shown on "Map 3, Resource Protection Areas" in Appendix A of this chapter.

MAJOR LAND USES ADJACENT TO THE SHORELINE

The major land uses adjacent to the shoreline can be categorized into the following four groups:

1) Residential
2) Recreational
3) Commercial
4) Agricultural/Forested/Other

The general use of the shoreline by these groups are shown on "Map 4, Shoreline Land Uses" in Appendix A of this chapter. The county has begun to develop a specific existing land use map using its new computer mapping resources. This process will probably take 12 months to complete. At that time, the more specific map, with its quantifiable data, should be adopted into this plan. Until then, though, the general land use map must be used.

Residential Use

Much of the tidal shoreline has been developed into residential subdivisions, although most have not yet reached full build-out. It is this shoreline residential development which accounts for almost all of the growth in the county and this growth is projected to continue at about the same rate - 10% per decade. Some portion of this growth will naturally occur in the existing subdivisions. However, this growth will generate pressure to convert less intensive shoreline uses, such as agricultural and forested lands, to residential uses. The Future Land Use Plan should note this development pressure and plan for it.

Recreational Use

Those areas shown as Recreational Uses include around 20 marinas both large and small, Colonial Beach's public beaches, Westmoreland State Park, George Washington's Birthplace National Monument, and Stratford Hall. The many marinas throughout the county provide a means for those citizens who do not own waterfront property to access and use the Potomac River and its many tributaries. As of the writing of this chapter, the Ragged Point Marina is in the process of obtaining permits to expand. It has already been issued a Special Exception Permit by the Westmoreland County Board of Supervisors to expand its facilities from 115 wet slips to 400 wet slips and to construct 400 dry storage slips. If this project is completed, Ragged Point Marina will be one of the largest marinas between Washington, D.C. and Norfolk, VA.

Westmoreland State Park is an important resource. It attracts tourists to the area, provides water access, and it is an important open space reserve which will only become more and more valuable as the county grows and as the shoreline develops. Likewise, Stratford Hall, although privately owned, is an extremely important component of the county's tourism industry, and it as also an important

open space reserve. Finally, George Washington's Birthplace, is another large tourist attraction which is a public owner of a large segment of the shoreline.

Commercial Use

The county's shoreline is dotted with small, individual commercial fisheries facilities, and a few conglomerations of commercial fishing facilities. As was stated earlier in this chapter, commercial fisheries are a large part of the local economy. On the land use scale, though, the are a very small user of the shoreline. In addition, the seafood industry is, and has been for several centuries, a unique and important part of the local culture.

Agricultural/Forestry/Other

Agriculture and forestry are the largest aerial land uses in the county. They are also a significant portion of the shoreline lands uses. As the county continues to grow, though, these are the uses which will face the most pressure for conversion to residential use. Such conversion has good and bad aspects. For instance, as forested land is converted to residential use, much wildlife habitat is lost. The value of the lost habitat is, however, dependent on site specific conditions. On the other hand, there are some agricultural uses where the shoreline faces severe erosion problems. The value of the agricultural use, however, may not be enough to justify the cost of shoreline protection. If such land is converted to a residential use the value of the land may then be enough to justify the cost. such is the case with the Church Point Subdivision on the Potomac River. As an agricultural use, the land eroded some number of feet per year. Once it was developed as a subdivision, though, the entire shoreline was hardened with rip-rap revetment. The conversion of land from agricultural or forested land to residential uses does warrant the careful consideration by the Board of Supervisors on a case by case basis.

WATER DEPENDENT FACILITIES

Water dependent facilities are defined in Section 7-4 of the Zoning Ordinance as:

> "a development of land that cannot be located outside of the Resource Protection Area and must be located on the Shoreline by reason of the intrinsic nature of its operation. These facilities include, but are not limited to (i) ports; (ii) the intake and outfall structures of power plants, water

treatment plants, sewage treatment plants, and storm sewers; (iii) marinas and other boat docking structures; (iv) beaches and other public water oriented recreation areas; and (v) fisheries or other marine resources facilities."

From the discussion in the previous section, then, the water dependent uses are the recreational and commercial fisheries uses. These two uses, however, represent the smallest portions of the shoreline. The location of the major water dependent uses are shown on "Map 5, Water Dependent Uses" in Appendix A of this chapter. As the specific land use map is developed, a map showing the locations of specific water dependent uses should be developed and adopted into this plan.

PUBLIC ACCESS AREAS

The inventory of public access sites in Westmoreland County is small but significant. It includes:

1) Colonial Beach's Public Beaches
2) George Washington's Birthplace National Monument
3) Westmoreland State Park
4) Colonial Beach Landing
5) Currioman Landing
6) Branson Cove Landing
7) Bonums Landing
8) Smith Mount Landing

The first three of these public access sites were described above in the section on land uses adjacent to the shoreline. The other five sites are small public areas available to launch boats and are rather undeveloped otherwise. These sites are all very valuable to the many citizens who do not own waterfront property. All of these sites are shown on "Map 6, Public Access Sites" in Appendix A of this chapter.

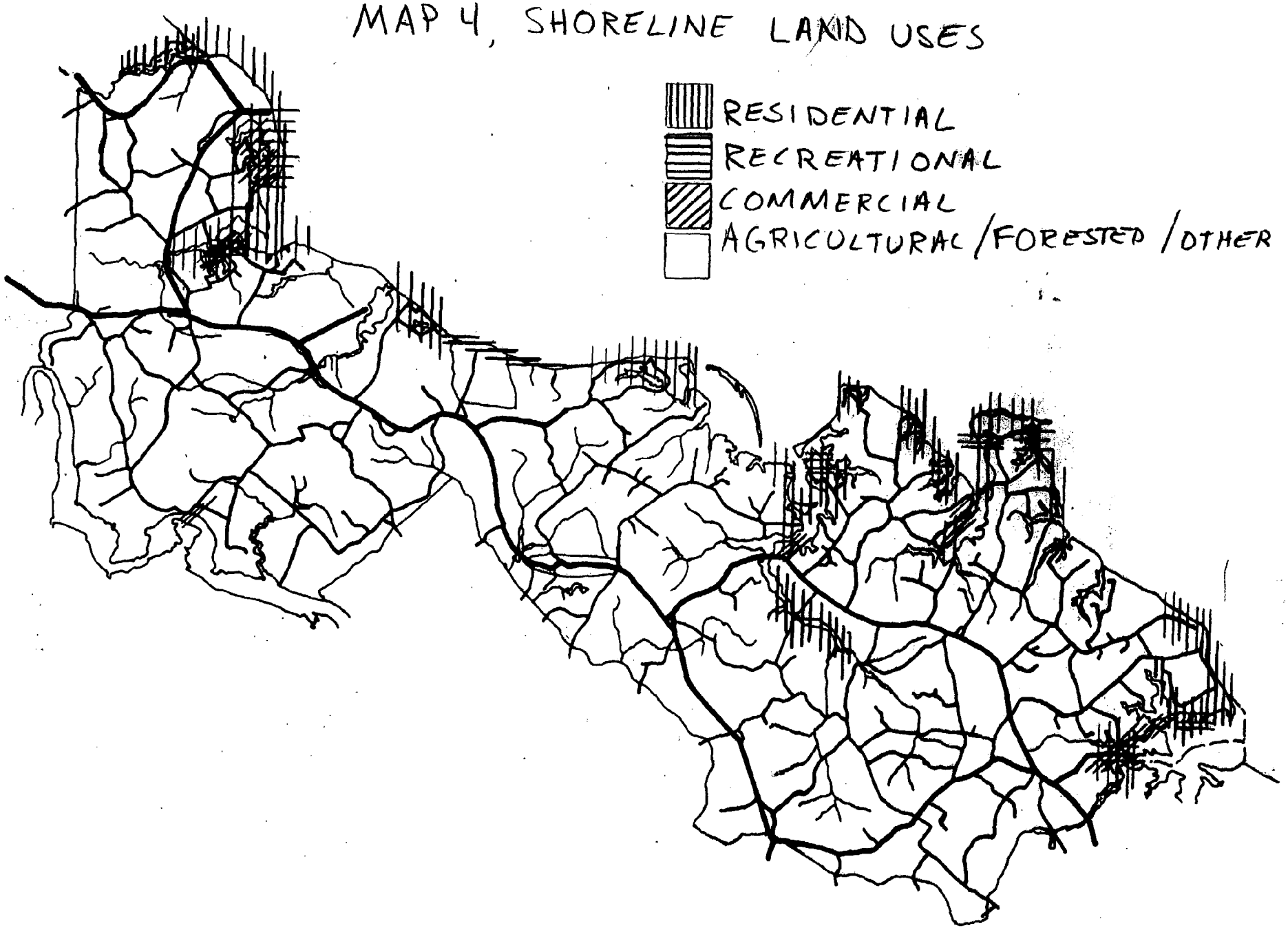
The Department of Conservation and Recreation is currently preparing the Chesapeake Bay Area Public Access Plan in accordance with the Chesapeake Bay Agreement. Once this report if published it should be reviewed to determine if portions of it should be adopted into this Comprehensive Plan.

SHORELINE EROSION

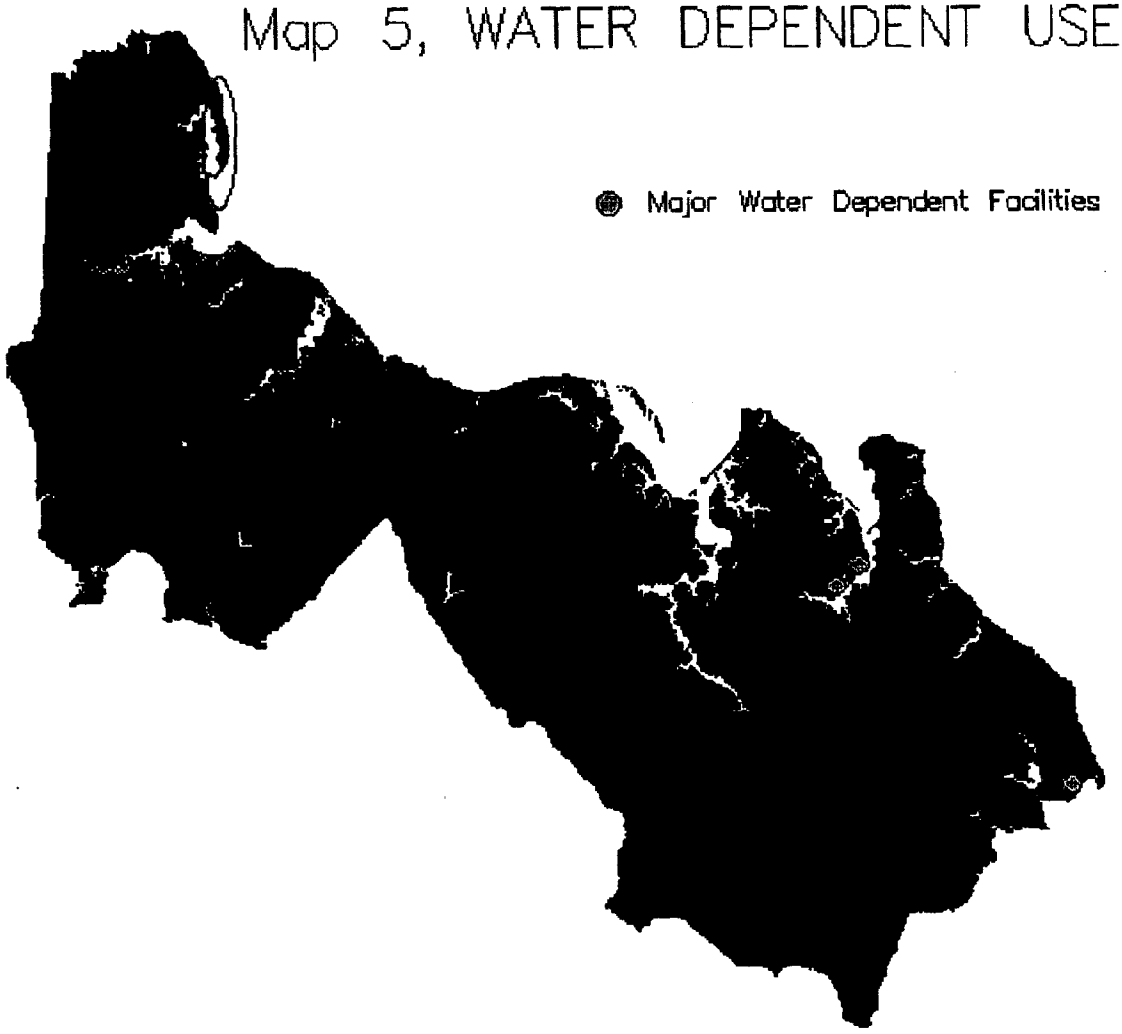
Most of the county's shoreline faces some degree of shoreline erosion. Those areas facing the greatest threat of erosion are shown on "Map 7, Shoreline Erosion" in Appendix A of this Chapter. In as much as shoreline erosion presents environmental problems and degrades water quality, development along the shoreline, especially in the severely eroding areas, warrants careful consideration of impacts to erosion.

The Virginia Institute of Marine Sciences is currently preparing a more detailed study of shoreline erosion. As the results of this study which pertain to Westmoreland County become available, they should be considered for inclusion into this plan.

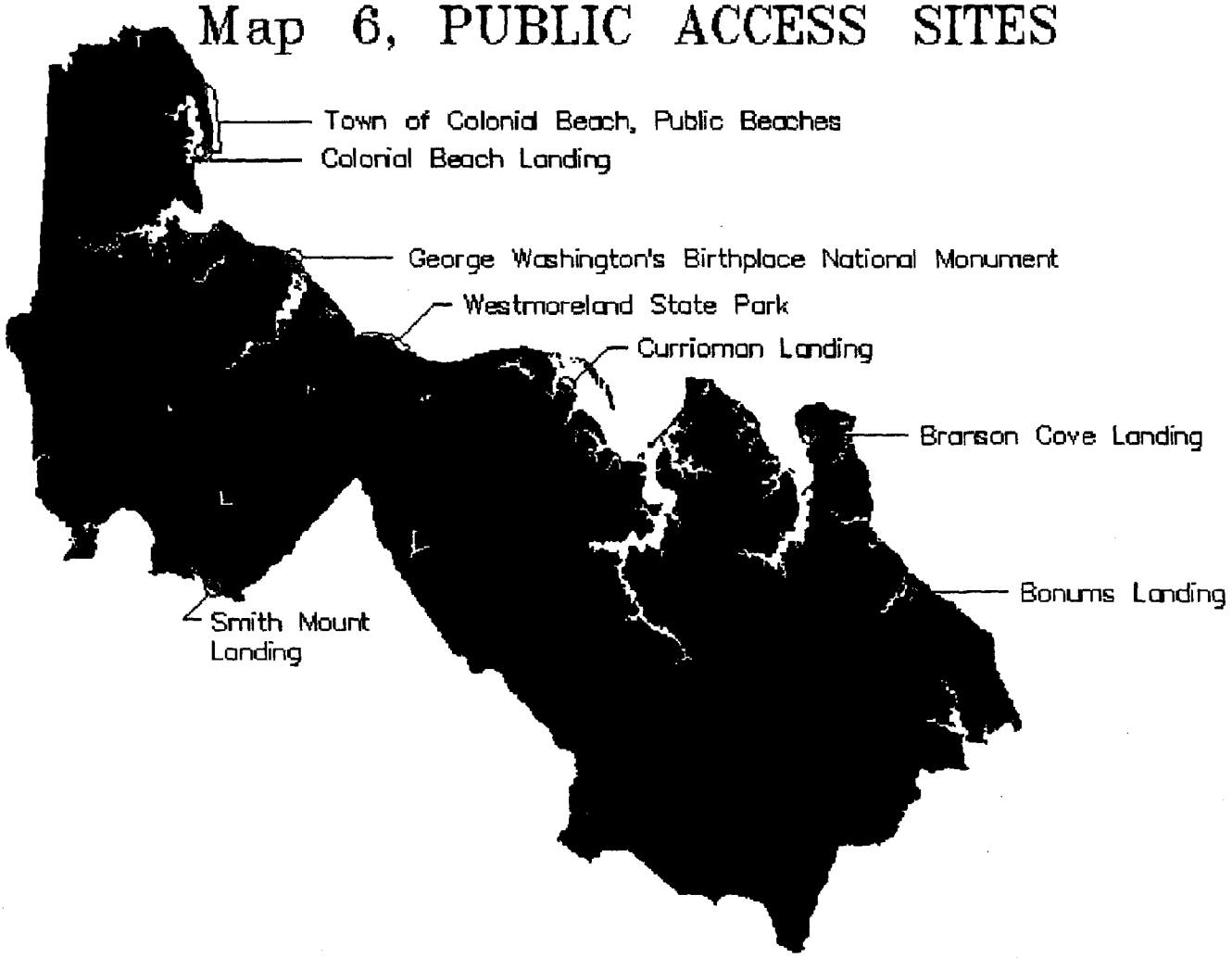
MAP 4, SHORELINE LAND USES



Map 5, WATER DEPENDENT USES



Map 6, PUBLIC ACCESS SITES



Map 7, SHORELINE EROSION